

ABSTRACT

The object of the present invention is to provide a motor, or spindle motor in which only an assembling operation of a completed compound bearing with the motor may be effected on the side of motor maker, the number of steps required for assembling can be reduced because the assembling operation of the bearing is not necessary, the precision of the rotation of the motor is high, the cost for fabrication can be reduced, the resistance against impact and/or resonance is high since the diameter of the shaft can be enlarged.

A motor with a compound bearing for OA device having a spindle shaft (5) assembled within a sleeve of the bearing apparatus through balls (13, 14), the bearing comprising; the spindle shaft formed of a stepped shaft including a reduced diameter portion and a larger diameter portion, an inner ring (8) slidably fit over the reduced diameter portion of the spindle shaft, a plurality of balls (14) interposed between a raceway (7) formed on the outer peripheral surface of the inner ring and a raceway (12) formed on the inner

surface of the sleeve, and a plurality of balls interposed between a raceway (6) formed on the outer peripheral surface of the larger diameter portion of the spindle shaft and a raceway (11) formed on the inner peripheral surface of the sleeve, wherein the bearing is completed as the compound bearing by fixedly adhering the inner ring on the reduced diameter portion of the spindle shaft with applying onto balls an appropriate pre-load through the inner ring (8), and wherein the motor with the compound bearing is provided by connecting the sleeve (10) or the spindle shaft (5) of the compound ball bearing integrally with the hub constituting a rotor (9) or the base (2).